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IN THE CLAIMS

Please cancel claims 2, 3, 5-9, and 17-21, amend claims 1, and 10-14 and add new claims 22-24 as follows:

1.   (CURRENTLY AMENDED) A method for the automatic configuration of a DSL (Digital Subscriber Line) modem connected to an analog telephone line, comprising:

automatically determining available communication resources on said analog telephone line,[[,]] comprising the steps of automatically detecting if a DSL communication circuit exists on said analog telephone line and automatically identifying a virtual communications route for communications between said DSL modem and a communications network; and

automatically configuring said DSL modem based on said available communication resources;

wherein said ~~detecting step further~~ step of automatically detecting if a DSL communication circuit exists on said analog telephone line comprises the steps of:

establishing a first connection between a first pair of wires of said analog telephone line and said DSL modem;

ascertaining whether a DSL communication circuit exists on said first connection;

generating a second connection between a second pair of wires of said analog telephone line and said DSL modem;

testing whether a remote DSL communication circuit exists on said second connection; and

storing results of said ascertaining and testing steps as at least part of said available communication resources[[.]]; and

wherein said step of automatically identifying a virtual communication route for communications between said DSL modem and a communications network comprises the steps of:

transmitting every Virtual Path Identifier/Virtual Channel Identifier (VPI/VCI) described in a list stored in the DSL modem to the communications network in an associated test cell;

after transmitting every VPI/VCI described in the list, acquiring a response cell from the communications network, the response cell being the first response cell received in response to the transmission of every VPI/VCI described in the list;

matching the VPI/VCI of the response cell to a VPI/VCI described in the list;

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using the VPI/VCI to communicate between the DSL modem and the communications network.

2.   (CANCELED)

3.   (CANCELED)

4.   (PREVIOUSLY PRESENTED) The method for the automatic configuration of a DSL modem according to claim 1, wherein said establishing and generating steps further comprise the step of switching between said first and said second connections using a relay.

5.   (CANCELED)

6.   (CANCELED)

7.   (CANCELED)

8.   (CANCELED)

9.   (CANCELED)

10.   (CURRENTLY AMENDED) The method for the automatic configuration of a DSL modem according to claim 8 1, wherein said acquiring step further comprises retrieving said response cell is received from a configuration server.

11.   (CURRENTLY AMENDED) The method for the automatic configuration of a DSL modem according to claim 8 1, wherein said acquiring step further comprises retrieving said response cell is received from a host via the internet.

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12.   (CURRENTLY AMENDED) The method for the automatic configuration of a DSL modem according to claim 8, wherein ~~said acquiring step further comprises retrieving~~ said response cell is received from a DSLAM (Digital Subscriber Line Multiplexer).

13.   (CURRENTLY AMENDED) An auto-configuring DSL (Digital Subscriber Line) modem, comprising:

a DSL circuit that communicates data along an analog telephone line;

a relay for switching a connection between (i) said DSL circuit and a first pair of wires of said analog telephone line, and (ii) said DSL circuit and a second pair of wires of said analog telephone line;

a memory, comprising:

instructions for connecting the DSL circuit to the analog telephone line;

instructions for determining available communication resources on said analog telephone line, comprising instructions for automatically detecting if a DSL communication circuit exists on said analog telephone line and instructions for automatically identifying a virtual communication route for communications between said DSL modem and a communications network, the instructions for automatically identifying a virtual communications route for communicating between the DSL modem and the communications network comprises instructions for:

transmitting every Virtual Path Identifier/Virtual Channel Identifier (VPI/VCI) described in a list stored in the DSL modem to the communications network in an associated test cell;

after transmitting every VPI/VCI described in the list, acquiring a response cell from the communications network, the response cell being the first response cell received in response to the transmission of every VPI/VCI described in the list; and

instructions for automatically configuring said DSL modem based on said available communication resources, the instructions comprising instructions for:

matching the VPI/VCI of the response cell to a VPI/VCI described in the list;

using the VPI/VCI to communicate between the DSL modem and the communications network.

14.   (CURRENTLY AMENDED) The auto-configuring DSL modem according to claim 13, wherein said instructions for determining further comprise instructions for automatically detecting if a remote DSL communication circuit exists on said analog telephone line.

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15.   (PREVIOUSLY PRESENTED) The auto-configuring DSL modem according to claim 14, wherein said instructions for detecting further comprise:

instructions for establishing a first connection between the first pair of wires of said analog telephone line and said DSL modem;

instructions for ascertaining whether a DSL communication circuit exists on said first connection;

instructions for generating a second connection between a the second pair of lines of said analog telephone line and said DSL modem;

instructions for testing whether a DSL communication circuit exists on said second connection; and

instructions for storing results of said ascertaining and testing steps as at least part of said available communication resources.

16.   (ORIGINAL) The auto-configuring DSL modem according to claim 15, wherein said instructions for establishing and generating further comprise instructions for switching said relay between said first and said second connections.

17.   (CANCELED)

18.   (CANCELED)

19.   (CANCELED)

20.   (CANCELED)

21.   (CANCELED)

22.   (NEW) The auto-configuring DSL modem of claim 13, wherein the response cell is received from a configuration server.

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